

**MBNMS Research Activity Panel  
Meeting Summary  
September 2007**

**Host:** Kerstin Wasson – Estuarine Ecology (Elkhorn Slough NERR and Foundation)

**Location:** Elkhorn Slough National Estuarine Research Reserve  
1700 Elkhorn Road  
Watsonville, CA 95076

**Date:** Friday, September 14th, 2007; 9:00 am to 12 pm

**Members PRESENT:**

	<b>Name</b>	<b>Discipline</b>	<b>Institution</b>	<b>Primary/ Alternate</b>
X	<b>Breaker, Laurence†</b>	Physical Oceanography	Moss Landing Marine Laboratories	alternate
X	Cailliet, Greg	Deep Sea Ecology	Moss Landing Marine Laboratories	primary
X	Carr, Mark	Nearshore Ecology	University of California, Santa Cruz	alternate
X	Coulston, Pat	Fisheries	California Department of Fish & Game	alternate
X	DeVogelaere, Andrew	Research Coordinator	Monterey Bay National Marine Sanctuary	
X	Faurot-Daniels, Ellen	Marine Policy	California Coastal Commission	primary
X	Hunt, John	Water Quality	University of California, Davis	alternate
X	Kudela, Raphael	Biological Oceanography	University of California, Santa Cruz	alternate
X	Pomeroy, Caroline	Social Sciences	California Sea Grant Extension Program	primary
X	Sharp, Gary	Marine Policy	Center for Climate/Ocean Resources Study	alternate
X	Storlazzi, Curt	Marine & Coastal Geology	United States Geological Survey	primary
X	Van Dyke, Eric	Estuarine Ecology	Elkhorn Slough NERR and Foundation	alternate
X	Wasson, Kerstin	Estuarine Ecology	Elkhorn Slough NERR and Foundation	primary
		Deep-sea Ecology		alternate
		Nearshore Ecology		primary
		Social Sciences		alternate

**Members ABSENT:**

	<b>Name</b>	<b>Discipline</b>	<b>Institution</b>	<b>Primary/ Alternate</b>
	Chavez, Francisco	Biological Oceanography	Monterey Bay Aquarium Research Institute	primary
	Epel, David	Water Quality	Hopkins Marine Station	primary
	Grimes, Churchill	Fisheries	NOAA Fisheries Service	primary
	<b>Harrold, Chris*</b>	Marine Conservation Biology	Monterey Bay Aquarium	primary
	McPhee-Shaw, Erika	Physical Oceanography	Moss Landing Marine Laboratories	primary
	Micheli, Fiorenza	Marine Conservation Biology	Hopkins Marine Station	alternate
	Paull, Charles	Marine & Coastal Geology	Monterey Bay Aquarium Research Institute	alternate
	Starr, Rick	Shelf & Slope Ecology	California Sea Grant Extension Program	alternate
	Yoklavich, Mary	Shelf & Slope Ecology	NOAA Fisheries Service	primary

\*Sanctuary Advisory Council Member: Research (Primary)

†Sanctuary Advisory Council Member: Research (Alternate)

**GUESTS:**

	<b>Name</b>	<b>Institution</b>
X	Burton, Erica	Monterey Bay National Marine Sanctuary
X	McGonigal, Huff	Monterey Bay National Marine Sanctuary
X	Wooninck, Lisa	Marine Protected Areas Center/NMFS

**CONSENT ITEMS****Introductions/modifications to the agenda (Larry Breaker)****Announcements**

- ESNERR: new buildings
  - 1) Research Center
  - 2) studio/kitchenette available for visiting scientists in area
  - <http://www.elkhornslough.org/esnerr.htm>
- ESNERR: Two documents were handed out
  - Document with the major questions that ESNERR scientists will be addressing 2006-2011, through long-term monitoring and short-term applied research
  - Document containing interesting questions that could be addressed in term papers or thesis research
  - To download, see <http://www.elkhornslough.org/research.htm>
- Burton passed around 2008 meeting/host sign-up sheet (follow-up w/email)

**PRESENTATIONS****Monitoring Elkhorn Slough Tidal wetlands: water levels and marsh elevation (Eric Van Dyke)**

- Historical changes in Slough (~1870-2000); from *Salicornia*-dominant to unvegetated state
- Elkhorn Slough Tidal Wetland Strategic Plan, available on web
  - [http://www.elkhornslough.org/tidalwetland/strategic\\_plan.htm](http://www.elkhornslough.org/tidalwetland/strategic_plan.htm)
- Changes in tidal inundation a major influence in the Slough (duration and/or frequency); and changes in land elevations an influence
- Two new tide gauges in Elkhorn Slough (Kirby park; portable gauge)
  - real-time data to ~mm
  - [http://tidesandcurrents.noaa.gov/station\\_retrieve.shtml?type=Tide+Data](http://tidesandcurrents.noaa.gov/station_retrieve.shtml?type=Tide+Data)
    - In Left Column, Click on California, Click on Elkhorn Slough
- Vertical Control Network installed (measures movements in Slough)
  - Plate Boundary Observatory: continuous GPS Station (P210) on web
    - <http://pbweb.unavco.org/shared/scripts/stations/?checkkey=P210>
- Monitoring Water Levels (tied to datums, more useful than just tidal gauge)
- Looking at tidal choking (longer or more frequent inundation; high tides backed up on each other)
- Monitoring Marsh Elevation, using the following
- ESNERR needs money to keep new tide gauge (few \$1000/year)
- MBNMS Institutional Permit has worked well for ESNERR

### **A closer look at regime shifts in North Pacific based on coastal observations along the west coast of North America (Larry Breaker)**

- Examined regime shifts: 1925, 1946, 1976 (major)
- Looked at cumulative sums of daily time series data of sea surface temperature (SST) at Hopkins Marine Station and Scripps Pier; a different way to define/measure regime shifts
- Examining the periodicity at which a pattern is detectable, can look at daily, weekly, and monthly data, but cannot detect with less frequent data (ie., CalCOFI data cannot detect shifts)
- Breaker, L.C. 2007. A closer look at regime shifts based on coastal observations along the eastern boundary of the North Pacific. *Continental Shelf Research* 27(17):2250-2277.

### **Research Priorities - Recommendation to MBNMS Superintendent (Larry Breaker)**

- See Appendix – Research Priorities

### **State of the Nation's Marine Managed Areas: West Coast Focus (Lisa Wooninck/MPA Center & NMFS)**

- Executive Order: enhance management and conservation of marine resources through effective use of mpas as ecosystem tool
- MPA center working on National Marine Managed Areas (MMA) inventory
  - [www.mpa.gov/pdf/helpful-resources/factsheets/mma\\_analysis\\_oct06.pdf](http://www.mpa.gov/pdf/helpful-resources/factsheets/mma_analysis_oct06.pdf)
- The Report, “The State of the U.S. Marine Managed Areas Along the West Coast” will be published at the end of 2007.

### **STAFF/SAC REQUESTS TO RAP**

#### **Advice to Staff on MPAs in Federal Waters (Huff McGonigal)**

- Over the past ~5 years the MBNMS MPA working group has been discussing MPAs in the MBNMS (state and federal waters)
- The State process is complete and new MPAs have been designated
  - [http://www.dfg.ca.gov/mlpa/ccmpas\\_list.asp](http://www.dfg.ca.gov/mlpa/ccmpas_list.asp)
- The MPA working group has not come to consensus on the need for MPAs in federal waters
- The Superintendent (Paul Michel) distributed a letter to the SAC and MPA working group members identifying the state of non-consensus, and has laid out a plan for the near future to get input from the SAC and working group members
- At the October 18<sup>th</sup>-19<sup>th</sup> SAC meeting, there will be presentations on the regulatory framework by Paul Reilly (CDFG; state), Steve Ralston (NOAA Fisheries; federal), and Sean Hastings (CINMS)
- At December 13-14<sup>th</sup> SAC meeting, the 3 constituent groups (fishing, conservation, research) will make presentations; SAC will make decision/input (not consensus) the following day, on whether the MBNMS should move forward with the MPA designation process in federal waters
- At the February SAC meeting, the MBNMS will present the decision on whether the MBNMS will be moving forward on MPA designations in federal waters

- Staff requested from the RAP:
  1. To understand the two MPA designation processes (state and federal) to inform their colleagues as needed
  2. To be informed on MPA science so they can assist in any future staff questions related to the topic
- The RAP discussed how to be better informed on the MPA process and science in federal waters?
  - They requested an executive summary of 5-year process and products of the MPA working group
  - A series of potential presentations to the RAP include:
    - Summarize the points of consensus and non-consensus of the working group
    - How social sciences are related to federal MPAs
    - A review of the new state MPAs, goals, monitoring, effectiveness
    - Review the state MPAs that reach federal waters, and what might it add to sanctuary goals by extending them
    - The problems motivating the federal effort (the need)
    - The problems that might be addressed by MPAs
    - Why not wait for results from State MPAs before implementing in federal waters
- In the future, the RAP may be asked for advice (e.g., when will we know if state MPAs working?)
- This item will be continued at the next RAP meeting

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#### **Future Agenda Items:**

- Water Quality
  - Findings on tracking pathogens in sea otters and connection to FW flows (CDFG, UC Davis?)
  - Critical coastal areas presentation (ASBS, areas water quality impaired, areas in good state; Ross Clark)
  - CCLEAN summary (Central Coast Long-term Environmental Assessment Network; Dane Hardin/Applied Marine Sciences)
- Food Safety Measures and Affected Wildlife (Mary Yoklavich)
- SIMoN: future monitoring (JMPR or beyond)
- SIMoN Special Status Species Project (Jennifer Brown)
- Role of offshore MPAs
- Ed Thornton to speak on coastal armoring and coastal erosion
- Linking SIMoN to management (Amber Szoboszlai; January 2008)
- Ed Ricketts Memorial Award/Lecture & Sanctuary Currents Reflection Award (Science; AMBAG)
- Science acronyms in the MBNMS (Erica Burton)
- RAP discussion on MPA process and advice

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**2007 RAP Meeting Schedule and Locations**

<b>Date</b>	<b>Host</b>	<b>Location</b>
January 12	Pomeroy	CA Sea Grant, Watsonville
March 9	Yoklavich	NOAA Fisheries, Santa Cruz
May 11	Hunt	Granite Canyon, Carmel
July 13	Coulston	CDFG, Monterey
September 14	Wasson	Elkhorn Slough NERR
November 16	Harrold	Monterey Bay Aquarium

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